

**WEST****End of Result Set**

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L1: Entry 8 of 8

File: DWPI

Aug 3, 1993

DERWENT-ACC-NO: 1993-278209

DERWENT-WEEK: 199335

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TITLE: Release-sustained micro-powder - contains reverse micelle of water-soluble polypeptide hormone(s) and biodegradable polymer

**ABTX:**

In an example, erythropoetin (50mg) was dissolved in water (500 micron l) contg. 0.5% of polyoxy ethylene sorbitan mono-oleater (Tween 80 (RTM), and stirred wti h oleic acid (10ml) to form reverse micelle soln. The soln was added to an (400ml) and centrifuged to give solid micelle, with 2 microns maximal size. The reverse micelle powder was dispersed in methylene chloride (500 micron l) and stirred with addn. of copolymer of polylactic acid and polyglycolic acid (75/25) to form soln. The soln. was added to 0.5% PVa contg. water (200ml) and stirred to form emulsion. After removal of the organic solvent, the emulsion was freeze-dried and cleaned with water to form microcapsule with 100 micron of maximal siz

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L1: Entry 2 of 8

File: USPT

Feb 23, 1999

DOCUMENT-IDENTIFIER: US 5874111 A

TITLE: Process for the preparation of highly monodispersed polymeric hydrophilic nanoparticles

## DEPR:

The surfactant, sodium bis ethylhexylsulphosuccinate, or AerosolOT (i.e., AOT) is dissolved in n-hexane to prepare reverse micelles. To the AOT solution in hexane (usually 0.03M to 0.1M of AOT in hexane), aqueous solutions of monomer or preformed polymer, crosslinking agent, initiator and drug are added and the polymerisation is done in presence of nitrogen gas. Additional amount of water may be added in order to get nanoparticles of larger size. The maximum amount of drug that can be dissolved in reverse micelles varies from drug to drug and has to be determined by gradually increasing the amount of drug till the clear microemulsion is transformed into translucent solution. All the stock solutions are prepared in phosphate buffer and the contents swirled vigorously in order to ensure the transparency of the solution. The reaction mixture is purged with nitrogen gas. Polymerisation is done in nitrogen atmosphere. The solvent n-Hexane is then evaporated out at a temperature, for example, of 35.degree. C. using rotary evaporator under low pressure when transparent dry mass is obtained. The material is dispersed in water and to it CaCl<sub>2</sub> solution is added drop by drop till all the calcium salt of diethylhexylsulphosuccinate (Ca(DEHSS)<sub>2</sub> from AOT) is precipitated. The mixture is then subjected to centrifugation, for example, at 15000 rpm for 10 mins. The supernatant is decanted off which contains nanoparticles containing encapsulated drug. Some nanoparticles remain absorbed in the cake of the precipitate. For complete recovery of the nanoparticles from the precipitated calcium (DEHSS)<sub>2</sub> the latter is dissolved in n-hexane and the nanoparticles extracted with water. The aqueous dispersion is immediately dialysed through, for example, 12,000 cut off dialysis membrane for about one hour and the liquid lyophilised to dry powder and stored at low temperature till further use.

## DEPR:

An antigen, from *Aspergillus fumigatus*, has been used as a drug for encapsulation. In a 40 ml of 0.03M AOT solution in hexane, 140 ul of freshly distilled pure vinylpyrrolidone, 35 ul of N,N'-methylene bis arylamide (0.49 mg/ml), 20 ul of 1% ferrous ammonium sulphate solution, 40 ul of 11.2% aqueous solution of tetramethylethylenediamine (TMED), 10 ul of 5% potassium persulphate as initiator and 180 ul of antigen (antigen)=16 mg/ml) were added. The amount of excess buffer to be added in reverse micelles was governed by the desired size of the nanoparticles to be prepared. The volume of the excess buffer can be carried from zero to maximum amount up to which microemulsion formation is possible and no phase separation takes place. The solution was homogeneous and optically transparent. Polymerisation was done in the presence of N<sub>2</sub> gas at 30 C. for 8 hours in a thermostatic bath with continuous stirring. The nanoparticles of polyvinylpyrrolidone containing encapsulated drug would be formed. The solvent was evaporated off in a rotary vacuum evaporator and the dry mass was resuspended in 5 ml of water. Calculated amount of 30% CaCl<sub>2</sub> solution was added drop by drop to precipitate AOT as calcium salt bisethylhexylsulphosuccinate. The centrifuged aqueous solution contains nanoparticles which was homogeneous and almost transparent. The cake of calcium DEHSS after centrifugation contains some amount of nanoparticles absorbed in it. It was dissolved in 10 ml of n-hexane and the hexane solution was washed 2-3 times each time with 1 ml water. The phase separated clear aqueous layer was drained out and was collected with the original filtrate. The total aqueous dispersion of nanoparticles was then dialysed (12,000 cut off membrane) for about 2 hours against water and the dialysed solution was lyophilised immediately to dry powder for subsequent use. The sample should be free from AOT, monomer, crosslinking agent and perdisulphate. Any trace amount of

free from AOT, monomer, crosslinking agent and perdisulphate. Any trace amount of unreacted materials and surfactant could be detected through HPLC. Perdisulphate was detected chemically using starch iodide solution and the presence of AOT was tested as follows:

**WEST**

Your wildcard search against 2000 terms has yielded the results below

Search for additional matches among the next 2000 terms

Generate Collection

Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 6198281 B1

L1: Entry 1 of 8

File: USPT

Mar 6, 2001

US-PAT-NO: 6198281

DOCUMENT-IDENTIFIER: US 6198281 B1

TITLE: NMR spectroscopy of large proteins

DATE-ISSUED: March 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wand; A. Joshua	Wallingford	PA	N/A	N/A
Ehrhardt; Mark R.	Eugene	OR	N/A	N/A
Flynn; Peter F.	Wallingford	PA	N/A	N/A

US-CL-CURRENT: 324/300; 324/321

[Full](#) [Title](#) [Citation](#) [Print](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KWC](#) [Draw Desc](#) [Image](#)

☐ 2. Document ID: US 5874111 A

L1: Entry 2 of 8

File: USPT

Feb 23, 1999

US-PAT-NO: 5874111

DOCUMENT-IDENTIFIER: US 5874111 A

TITLE: Process for the preparation of highly monodispersed polymeric hydrophilic nanoparticles

DATE-ISSUED: February 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Maitra; Amarnath	Delhi-110007	N/A	N/A	INX
Ghosh; Prashant Kumar	New Delhi-110058	N/A	N/A	INX
De; Tapas K.	Delhi-110007	N/A	N/A	INX
Sahoo; Sanjeeb Kumar	Delhi-7	N/A	N/A	INX

US-CL-CURRENT: 424/499; 424/501, 528/481, 528/482, 528/488

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw Desc	Image
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☐ 3. Document ID: US 5262357 A

L1: Entry 3 of 8

File: USPT

Nov 16, 1993

US-PAT-NO: 5262357

DOCUMENT-IDENTIFIER: US 5262357 A

TITLE: Low temperature thin films formed from nanocrystal precursors

DATE-ISSUED: November 16, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Alivisatos; A. Paul	Berkeley	CA	N/A	N/A
Goldstein; Avery N.	Oakland	CA	N/A	N/A

US-CL-CURRENT: 438/488; 23/300

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw Desc	Image
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☐ 4. Document ID: US 5252450 A

L1: Entry 4 of 8

File: USPT

Oct 12, 1993

US-PAT-NO: 5252450

DOCUMENT-IDENTIFIER: US 5252450 A

TITLE: Capped photochromic silver halides for incorporation into a plastic matrix

DATE-ISSUED: October 12, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schwerzel; Robert E.	Columbus	OH	N/A	N/A
Spahr; Kevin B.	Worthington	OH	N/A	N/A

US-CL-CURRENT: 430/567; 430/569, 430/601, 430/603, 430/611

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw Desc	Image
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☐ 5. Document ID: US 5238671 A

L1: Entry 5 of 8

File: USPT

Aug 24, 1993

US-PAT-NO: 5238671

DOCUMENT-IDENTIFIER: US 5238671 A

TITLE: Chemical reactions in reverse micelle systems

DATE-ISSUED: August 24, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Matson; Dean W.	Kennewick	WA	N/A	N/A
Fulton; John L.	Richland	WA	N/A	N/A
Smith; Richard D.	Richland	WA	N/A	N/A
Consani; Keith A.	Richland	WA	N/A	N/A

US-CL-CURRENT: 423/397; 423/659, 516/22, 516/25, 516/925

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	ABC	Draw Desc	Image
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☐ 6. Document ID: US 4714692 A

L1: Entry 6 of 8

File: USPT

Dec 22, 1987

US-PAT-NO: 4714692

DOCUMENT-IDENTIFIER: US 4714692 A

TITLE: Microemulsion impregnated catalyst composite and use thereof in a synthesis gas conversion process

DATE-ISSUED: December 22, 1987

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Abrevaya; Hayim	Chicago	IL	N/A	N/A
Targos; William M.	Palatine	IL	N/A	N/A

US-CL-CURRENT: 502/261; 427/217, 502/263, 502/300, 502/325, 502/332, 502/523,  
516/21, 516/30, 518/715

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	ABC	Draw Desc	Image
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☐ 7. Document ID: CN 1217387 A

L1: Entry 7 of 8

File: DWPI

May 26, 1999

DERWENT-ACC-NO: 1999-459279  
DERWENT-WEEK: 199940  
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TITLE: Anti:micelle method of solvent extraction for preparing superfine powder of metal oxide and its use - uses tri:alkyl phosphate, kerosene, inorganic acid and alkaline solution

INVENTOR: CHEN, J; YANG, C

PRIORITY-DATA: 1997CN-0120276 (November 12, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1217387 A	May 26, 1999	N/A	001	C22B003/38

INT-CL (IPC): C22B 3/38

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw Desc	Image
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☐ 8. Document ID: JP 05194253 A

L1: Entry 8 of 8

File: DWPI

Aug 3, 1993

DERWENT-ACC-NO: 1993-278209  
DERWENT-WEEK: 199335  
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Release-sustained micro-powder - contains reverse micelle of water-soluble polypeptide hormone(s) and biodegradable polymer

PRIORITY-DATA: 1992JP-0005987 (January 16, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 05194253 A	August 3, 1993	N/A	007	A61K037/02

INT-CL (IPC): A61K 9/50; A61K 37/02; A61K 37/30; A61K 37/66; A61K 47/42; A61K 47/44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	RMK	Draw Desc	Image
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Generate Collection

Terms	Documents
(reverse adj1 micelle\$) same (dehydrat\$ or lyophili\$ or powder\$)	8

Display

30

Documents, starting with Document:

8

**Display Format:**

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Change Format